Important Advances in Clinical Medicine

Epitomes of Progress—
Preventive Medicine and Public Health

The Scientific Board of the California Medical Association presents the following inventory of items of progress in Preventive Medicine and Public Health. Each item, in the judgment of a panel of knowledgeable physicians, has recently become reasonably firmly established, both as to scientific fact and important clinical significance. The items are presented in simple epitome and an authoritative reference, both to the item itself and to the subject as a whole, is generally given for those who may be unfamiliar with a particular item. The purpose is to assist the busy practitioner, student, research worker or scholar to stay abreast of these items of progress in Preventive Medicine and Public Health which have recently achieved a substantial degree of authoritative acceptance, whether in his own field of special interest or another.

The items of progress listed below were selected by the Advisory Panel to the Section on Preventive Medicine and Public Health of the California Medical Association and the summaries were prepared under its direction.

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Resurgence of Lice and Scabies

EVEN THOUGH ectoparasitic infestations are not reportable diseases, public health departments in the past few years have been made aware that both scabies and lice are again appearing in epidemic proportions in the population. Statistics are inaccurate, but those outbreaks that are reported via schools and public health clinics indicate a need for control measures.

Control measures for ectoparasitic infestations, scabies and lice, consist of education, treatment and prevention. Therefore, when a primary case of either disease is diagnosed, not only should the patient be treated but a short explanation of how scabies and lice are transmitted and spread should follow.

At present, the preferred and most common method of treatment is use of some form of the pesticide gamma benzene hexachloride. For use on humans, this is a prescription item and can be purchased as Kwell® cream, shampoo or lotion. Lindane, its over-the-counter disinfectant form (formerly available as a powder or lotion), can be purchased as an aerosol spray, Linofly®. Use of this form in treatment is effective since it kills both the adult parasites and their ova (nits of lice). In treating the patient, one must use effective therapy against the parasites both on the human as well as on their fomites.

Several useful medications for treating ectoparasites can be purchased over-the-counter.

- Sulphur ointment, B.P. (10 percent sulfur) —can also be used in a vanishing cream base. Marketed sulfur soaps have little effect.
- Dimethyl-diphenylene disulphide (dimethyl-

thianthrene) formerly marketed as Mitigal.® Very effective treatment. Expensive. Can be used in concentrations from 10 to 100 percent without causing dermatitis.

- Benzyl benzoate emulsions—At least a 20 percent concentration is necessary for 99 percent effectiveness.

In the treatment of scabies and lice, one must always take into account that by the time the patient is first diagnosed and treated with a proper medication for the parasites, they may well have a secondary pyoderma or eczematoid dermatitis. The therapeutic regimen for the patient, therefore, should take into account all of these factors.

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The Prevention of Erythroblastosis Fetalis

ERYTHROBLASTOSIS FETALIS due to Rh incompatibility is now a fully preventable disease. A recently published report of the World Health Organization (WHO) Scientific Group, *Prevention of Rh Sensitization,* summarizes both the rationale and the techniques that must be applied. Other authors have also pointed out how these recommendations should be incorporated into the practice of clinical preventive medicine by all those caring for pregnant women.

THE WHO RECOMMENDATIONS

- All Rh-negative women who are not already immunized to Rh and who give birth to an Rh-positive infant should receive a dose of anti-Rh. This dose should be judged according to the titer of anti-Rh in a woman's serum. The inhibitory effect of this anti-Rh is only transient so that a dose given at the time of a first delivery will have no effect on immunization following a later pregnancy. Therefore, the dose must be given after each pregnancy.
- D^u women should not be treated with anti-Rh since most of it will be absorbed onto the D^u cells, leaving very little to react with the infant's red cells. In addition, the risk of formation of anti-Rh in a D^u woman is extremely small.
- Rh-negative women who have abortions should receive a dose of anti-Rh, unless it is shown that the conceptus is Rh-negative.
- Anti-Rh should be given to all non-immunized Rh-negative women following any incidents during pregnancy where appreciable transplacental bleeding (for example, external version, amniocentesis and antepartum hemorrhage) can be anticipated.
- The presence in the recipient of other blood group antibodies, such as anti-K, is not a contraindication to giving a dose of anti-Rh.
- The presence of immunoglobulin preparations of other red cell antibodies, such as anti-C, anti-E or anti-K, is unimportant and it is unnecessary to cross-match the immunoglobulin against the recipient's red cells. On the other hand, cross-matching may be used as a method of detecting a large transplacental hemorrhage.
- Anti-Rh immunoglobulin should be given as soon as possible after delivery and within 72 hours whenever possible. It can be given either intramuscularly or, if suitably prepared, intravenously. When the intramuscular route is used, care should be taken to avoid injection into adipose tissue.

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Influenza Vaccines 1974

AT PRESENT only inactivated influenza vaccines are licensed for use in the United States. In recent years, these vaccines have been more standardized and have contained fewer impurities. Some of these vaccines are produced using recombination techniques which cut production time from six months to less than four weeks and increased the yield of virus particles by a factor of ten. These vaccines stimulate production of serum antibodies and nasal neutralizing antibodies against the viral strains they contain. Their effectiveness is estimated at 70 to 80 percent.

Most influenza vaccines are manufactured during the first half of the calendar year in preparation for distribution in the fall months. These vaccines are bivalent, containing inactivated virus particles from antecedent and prevalent strains of